Get ready for the performance of your life.

MCS™
Series

Modular Component Systems

JCPenney

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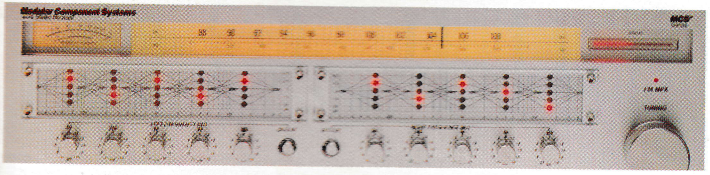
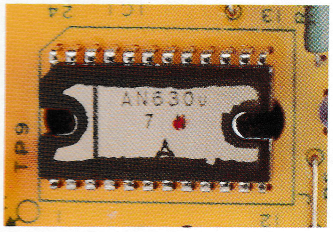
A sophisticated ear needs a sophisticated stereo system.

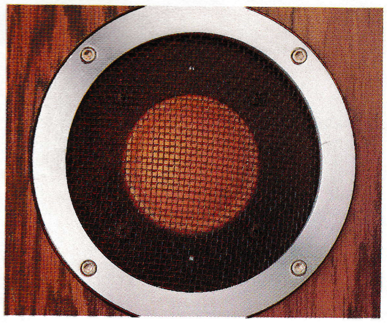
Advanced technology. It's what sets the MCS™ Series apart from other stereo components. For example, our receiver with an exclusive graphic equalizer. A feature once limited to professional recording studios. It provides you with over 105,000 frequency emphasis combinations to choose from. So you hear exactly what you want to hear. There's an LED visual feedback, too, that immediately tells you which frequency pattern you've established.



Our single chip IC direct drive turntable incorporates 321 elements to give you accurate motor speed control. And the accuracy is kept constant because the motor is locked in with electronic precision.



Our speakers with a patented soft dome midrange give you extremely wide dispersion of sound in the vocal tone frequencies.



It all adds up to a stereo system that doesn't just play, it performs. And we're so sure of the quality that every component is covered by the MCS™ Series Warranty.

Full 5 year warranty on speakers. Within five years of purchase, we will, at our option, repair or replace this speaker if it is defective in material or workmanship. (For remainder of warranty see below.)

Full 3 year warranty on receivers, turntables and tape decks. Within three years of purchase, we will, at our option, repair or replace the single or multiple play Turntable, Receiver, Tuner, Amplifier or Tape Deck of this Modular Component System if defective in material or workmanship. (For remainder of warranty see below.)
Parts and labor are included. Just return it to the nearest JCPenney facility in your area. If there is no JCPenney facility in your area, write to Carole Winslowe, JCPenney Co., Inc., Product Service Department, 1301 Avenue of Americas, New York, New York 10019.
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

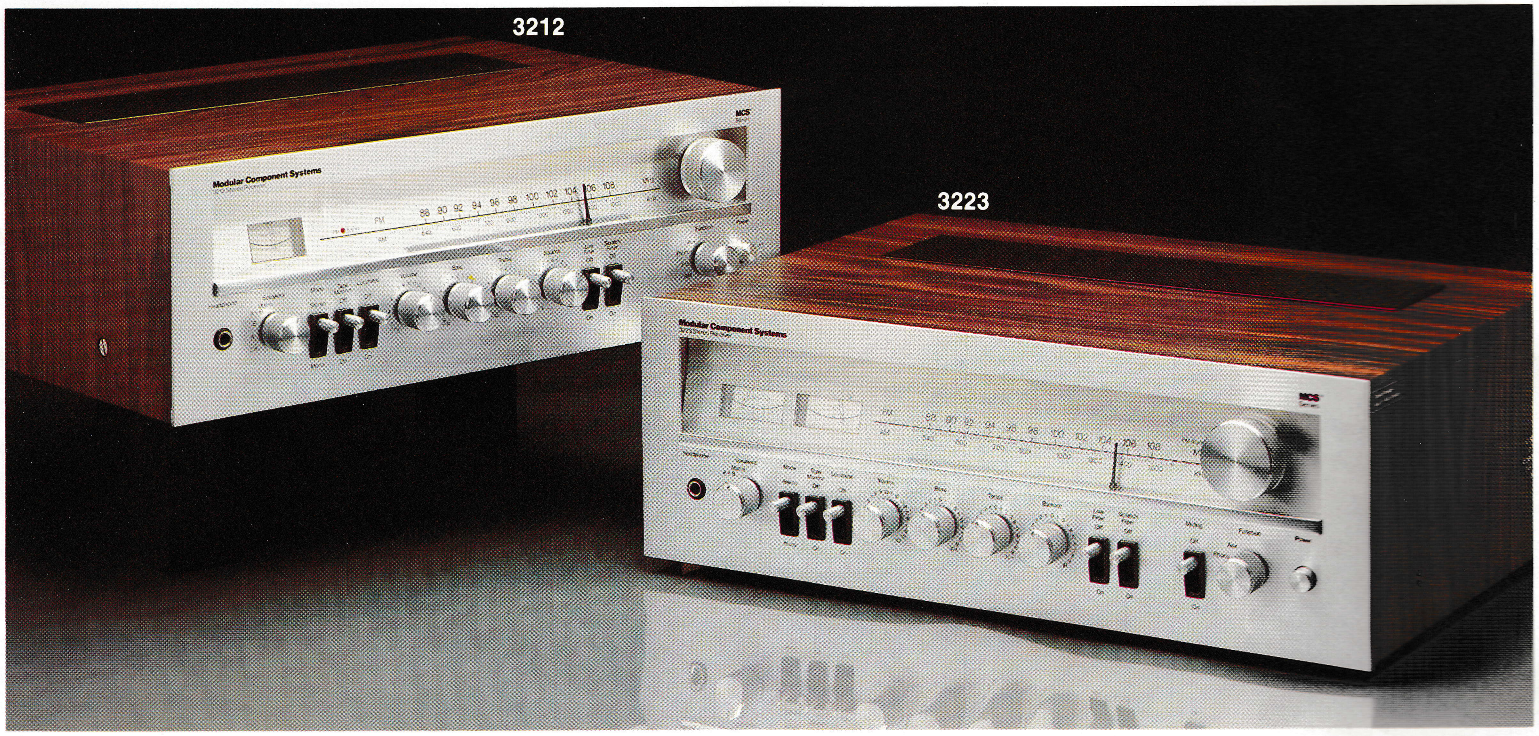
So if you've got a sophisticated ear for music, match it with a sophisticated stereo system.

MCS™ Series

Sold and serviced only at JCPenney

MCS™ Series

12 Watt FM/AM Stereo Receiver.
23 Watt FM/AM Stereo Receiver.



3212 Power: 12 watts RMS per channel, 2 channels driven at 8 Ohms. From 40 to 20,000 Hz. With not more than 1% total harmonic distortion.

Features

Flywheel Tuning: Balanced to give you precision station selection.

Signal Strength Meter: Assures that you have your receiver set to attain the best possible reception.

FM Stereo Indicator Light: Lights automatically to indicate you are receiving a stereo FM signal.

FM Muting Switch: Reduces any disturbing interstation background noise when you are switching FM stations.

Scratch Filter: Filters out high frequency distortion such as scratches on records.

Mainline Fuse: Protects your receiver from damage which can be caused from a sudden increase in power input.

Loudness Switch: Boosts the power of lower frequencies (Bass).

Ceramic Magnetic Switch: Lets you use your receiver with either a ceramic or magnetic turntable.

Low Filter: Reduces annoying background rumble.

A,B, A&B Matrix Speaker Selection: Allows you to hook up 3 sets of speakers and play up to two sets at one time.

Circuitry

FET FM Front End: A single gate MOS-FET coupled with the 3-gang FM variable tuning capacitor provides improved sensitivity, image rejection, and spurious response.

Phased Locked Loop FM Multiplex Detector: Employs a phase-lock-loop integrated circuit ensuring extra stable alignment and improved reception.

3223 Power: 23 watts RMS per channel, 2 channels driven at 8 Ohms. From 40 to 20,000 Hz. with not more than 0.9% total harmonic distortion.

Features

FM Tuning Meter: For accurate reception of FM stereo broadcasts.

Speaker Protection Fuses: Insure you that you can't blow your speakers through a sudden power overload.

FM Muting Switch: Reduces any disturbing interstation background noise when you are switching FM stations.

Circuitry

Dual Gate MOS-FET Coupled with the 3-Gang FM Variable Tuning Capacitor: Assures high sensitivity, improved image rejection. 3 FM IF filters for improved alignment stability and selectivity in the FM IF strip.

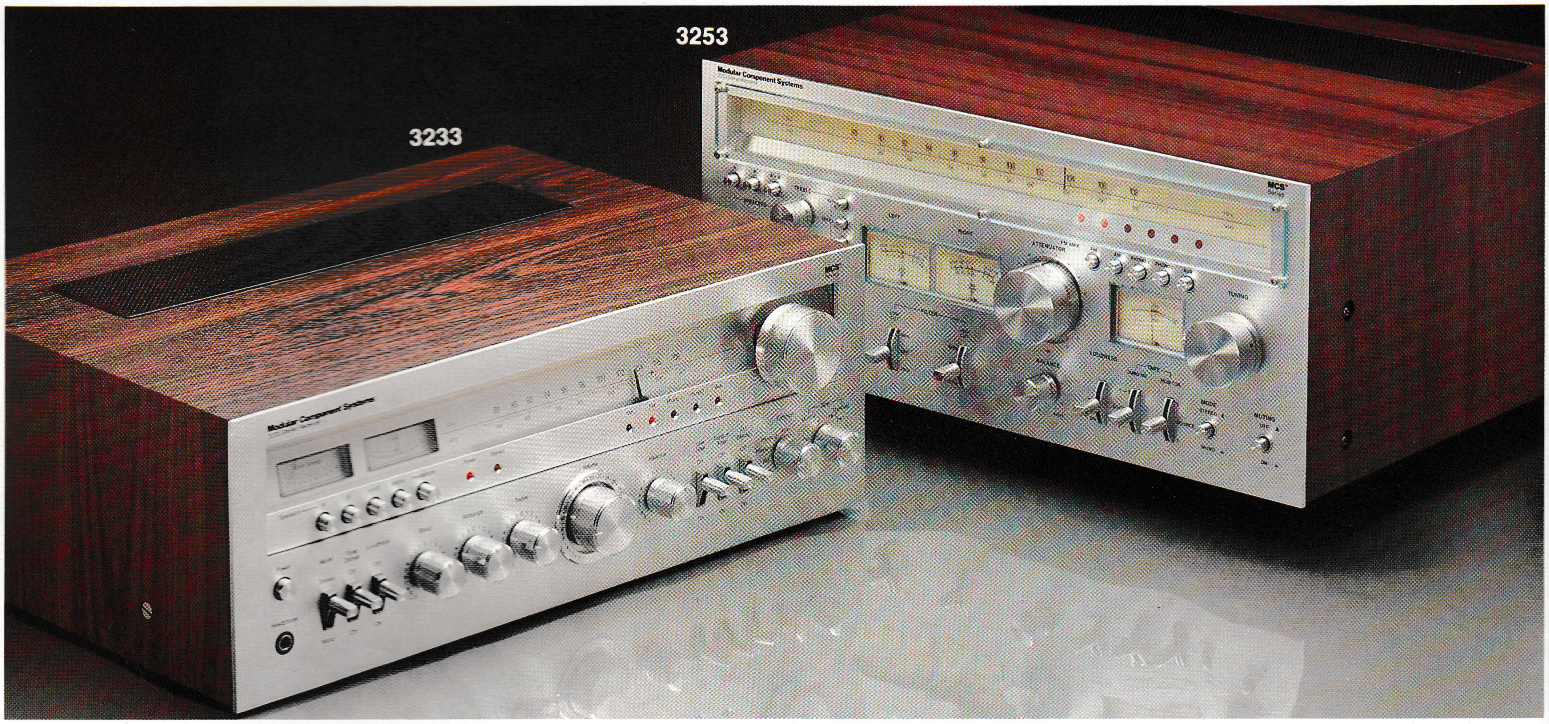
Differential Amplifier Input with DC Feedback: For controlled power supply tracking. Active transistor biasing control stage for thermal tracking.

Other Features

Signal strength meter, FM stereo indicator light, Low filter, Scratch filter, FM mute, FET FM front end, Phased locked loop FM multiplex detector, Flywheel tuning, A,B, A&B matrix speaker selection.

MCS™ Series

33 Watt FM/AM Stereo Receiver.
53 Watt FM/AM Stereo Receiver.



3233 Power: 33 watts RMS minimum per channel, 2 channels driven at 8 Ohms. From 20 to 20,000 Hz. With not more than 0.8% total harmonic distortion.

Features

Defeat Switch: Causes the signal to bypass the tonal controls and provides a perfectly flat frequency response.

Tape Monitor/Dubbing: Lets you hook up two tape decks and tape from one deck to the other.

Midrange Control: Lets you have flexibility in controlling what frequencies you wish to emphasize or de-emphasize.

Attenuator Volume Control: Allows more precise volume control.

Circuitry

Dual Gate MOS-FET Coupled with the 3-Gang FM Variable Tuning Capacitor: Assures high sensitivity, improved image rejection. 3 FM IF filters for improved alignment stability and selectivity in the FM IF strip.

Differential Amplifier Input with DC Feedback: For controlled power supply tracking. Active transistor biasing control stage for thermal tracking.

Other Features

Signal strength meter, FM tuning meter, FM stereo indicator light, Scratch filter, Low filter, FM mute, FET front end, Phased locked loop FM multiplex detector, Flywheel tuning.

3253 Power: 53 watts RMS per channel, 2 channels driven at 8 Ohms. From 20 to 20,000 Hz, with not more than 0.5% total harmonic distortion.

Features

Relay Protection: Helps control power and prevents speaker blow out. If sudden burst of power occurs, circuitry automatically shuts down.

Wattage Meters: Provide an instantaneous readout of exactly how much power your receiver is putting out.

Volume Attenuator: Gives you a more accurate increase or decrease of volume than conventional volume controls.

Tonal Controls and Filters: For added sound flexibility.

Two-Step High Filter: Eliminates some high frequency noise or hiss found on scratched records or some FM broadcasts. Gives you a choice of two cut off frequencies.

Two-Step Low Filter: Eliminates some audible frequency noise such as hum, rumble or noise caused from warped records. Gives you a choice of two cut off frequencies.

Two-Step Treble Control: Adjusts high frequency response. Defeat position obtains a flat response in high frequency.

Presence Control: Adjusts midrange frequency response. Defeat position obtains a flat response in the midrange.

Two-Step Bass Control: Adjusts low frequency response. Defeat position obtains a flat response in the low frequency.

Circuitry

OCL Circuit: Elevates power and suppresses distortion.

Frequency Linear 3-Gang Variable Capacitor: Increases sensitivity to faint broadcast signals and suppresses interference.

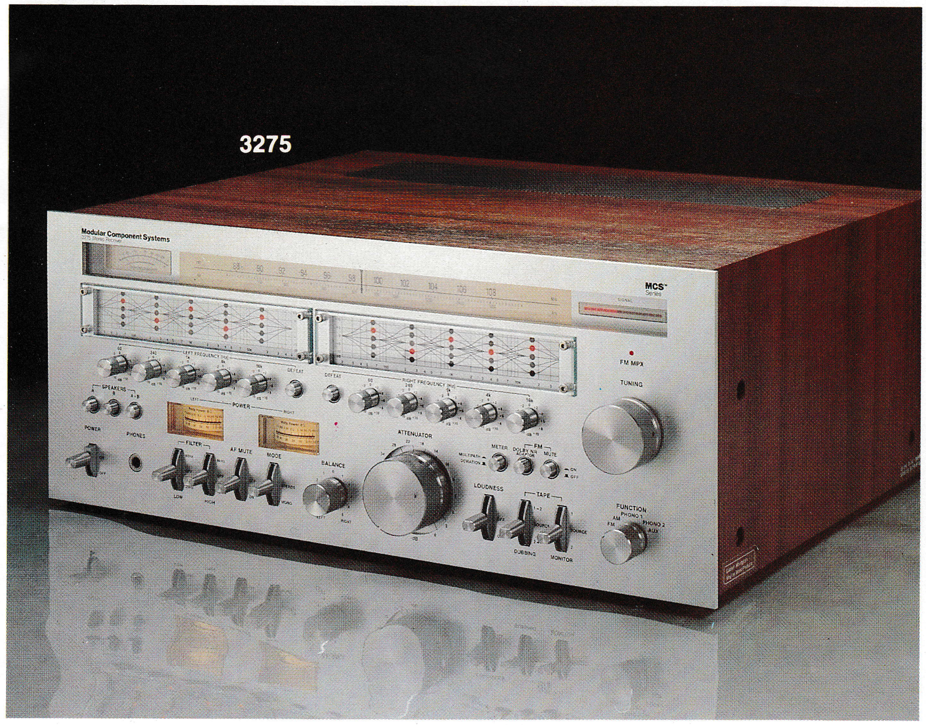
Low Noise Field Effect Transistor: Accepts very strong inputs without overload.

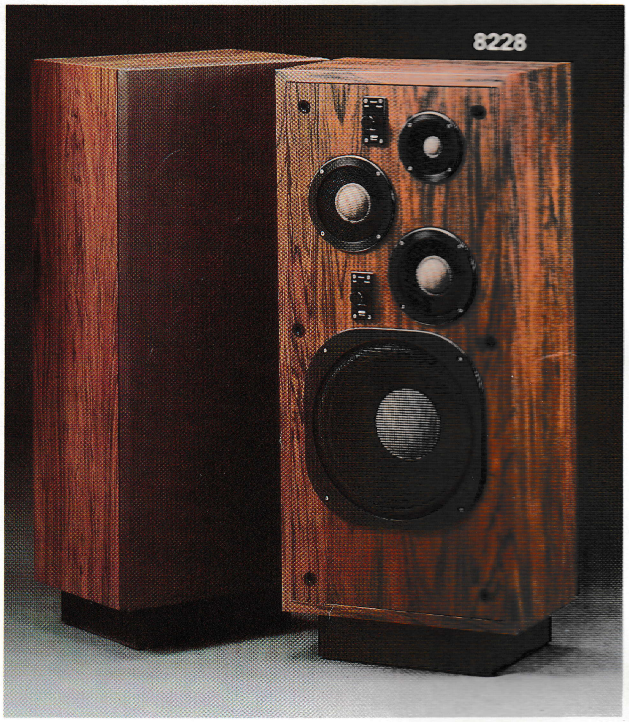
FM IF Amplifier with Special IC Ceramic Filter: Gives improved FM selectivity, helps eliminate jamming noise, rejects alternate channel interference.

Advanced Phase-Locked Loop Circuit: Gives you high performance channel to channel separation at all times.

MCS™ Series

75 Watt FM/AM Stereo Receiver. High Efficiency Air Suspension Speakers.





3275 Power: 75 watts RMS per channel, 2 channels driven at 8 Ohms. From 20 to 20,000 Hz. With not more than 0.25% total harmonic distortion.

Features

Exclusive MCS™ Series Graphic Equalizer with LED Readout: For sound once limited to professional recording studios. LED visual feedback tells you immediately which frequency pattern you've established.

Multipath Meter: Insures that your FM dipole antenna is positioned properly for the cleanest, strongest FM signal available.

Deviation Meter: Shows you the depth of FM modulation, which determines the volume that the loudest passage of music transmitted by an FM station will be. Used mostly for taping from FM stations to check signal strength against peak power meter.

LED Signal Strength Indicators: Help you tune into the strongest AM and FM signals.

AF Mute: Drops the master volume by 20db at the flick of a switch without touching master volume control.

FM Dolby* Decoder: Gives you true FM Dolby sound decoding. *Registered trademark of Dolby Labs. Inc.

Other Features

Relay protection, Wattage meters, Volume attenuator, Tonal controls and filters, OCL circuit, Frequency linear 3-gang variable capacitor, Advance phase-lock loop circuit.

8228 Features

12-in. Woofer with a 54 oz. Ferrite Magnet: Can handle any receiver from 50 to 150 watts RMS without distortion.

Two 2-in. Soft Dome Midranges: Provide the widest dispersion of sound in the midrange frequencies of any of our speakers.

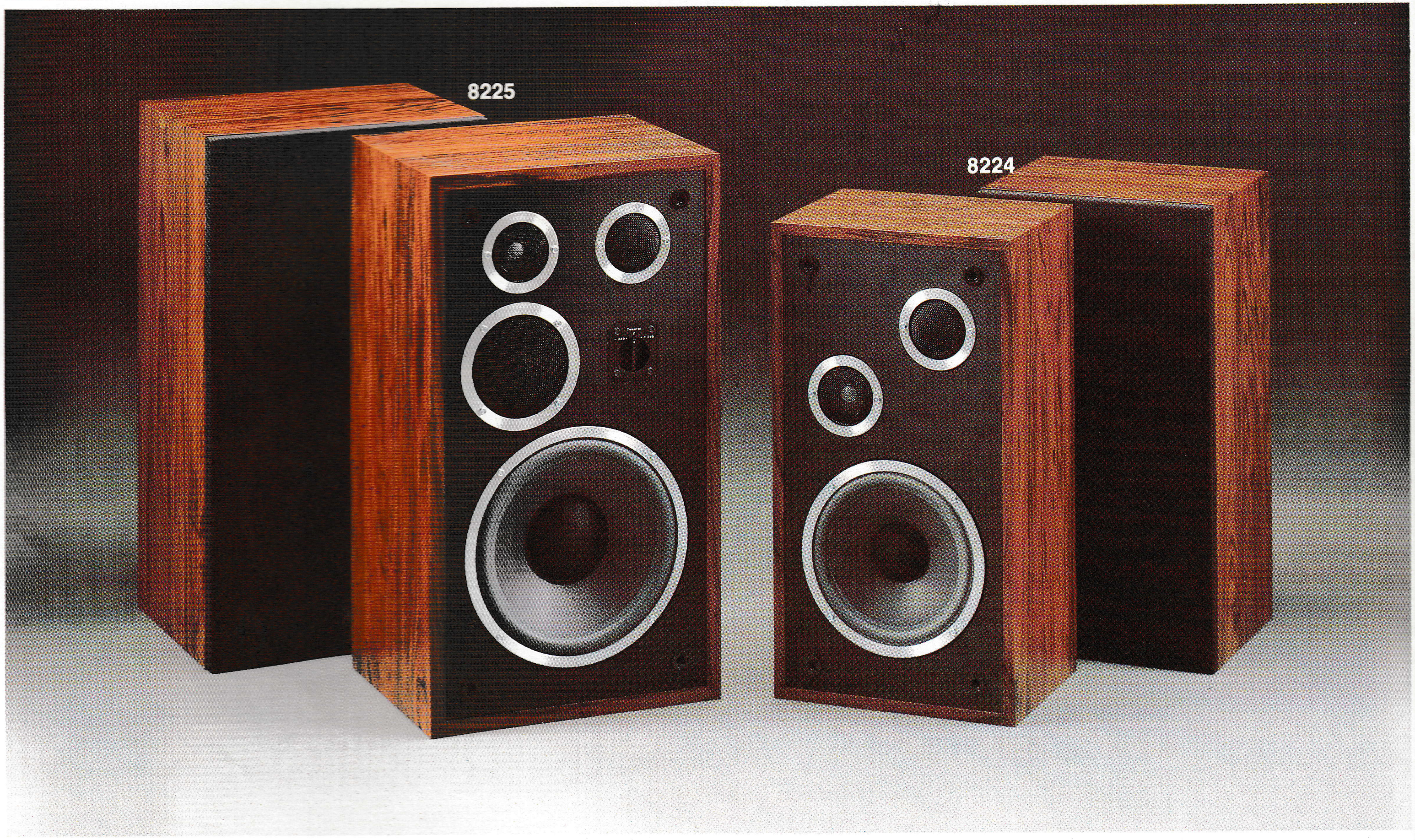
Speaker Stand: Insures that the woofer is even further from the ground, preventing reflected bass sound.

Soft Dome 1-in. Tweeter with a 10 oz. Ferrite Magnet: Gives you extremely wide dispersion of high frequency sounds.

Tweeter and Midrange Controls: Let you adjust the midrange and tweeter to account for room acoustics as well as personal taste.

MCS™ Series

High Efficiency Speakers.



8225 Features

10-in. Long Throw Linear Woofer with 15 oz. Ferrite Magnet: Provide a deeper bass and can easily handle receivers rated from 10 to 50 watts RMS without bass distortion.
5¼-in. Midrange: Gives clearer, stronger sound in the critical voice ranges that are so important in ensuring presence in your recordings.

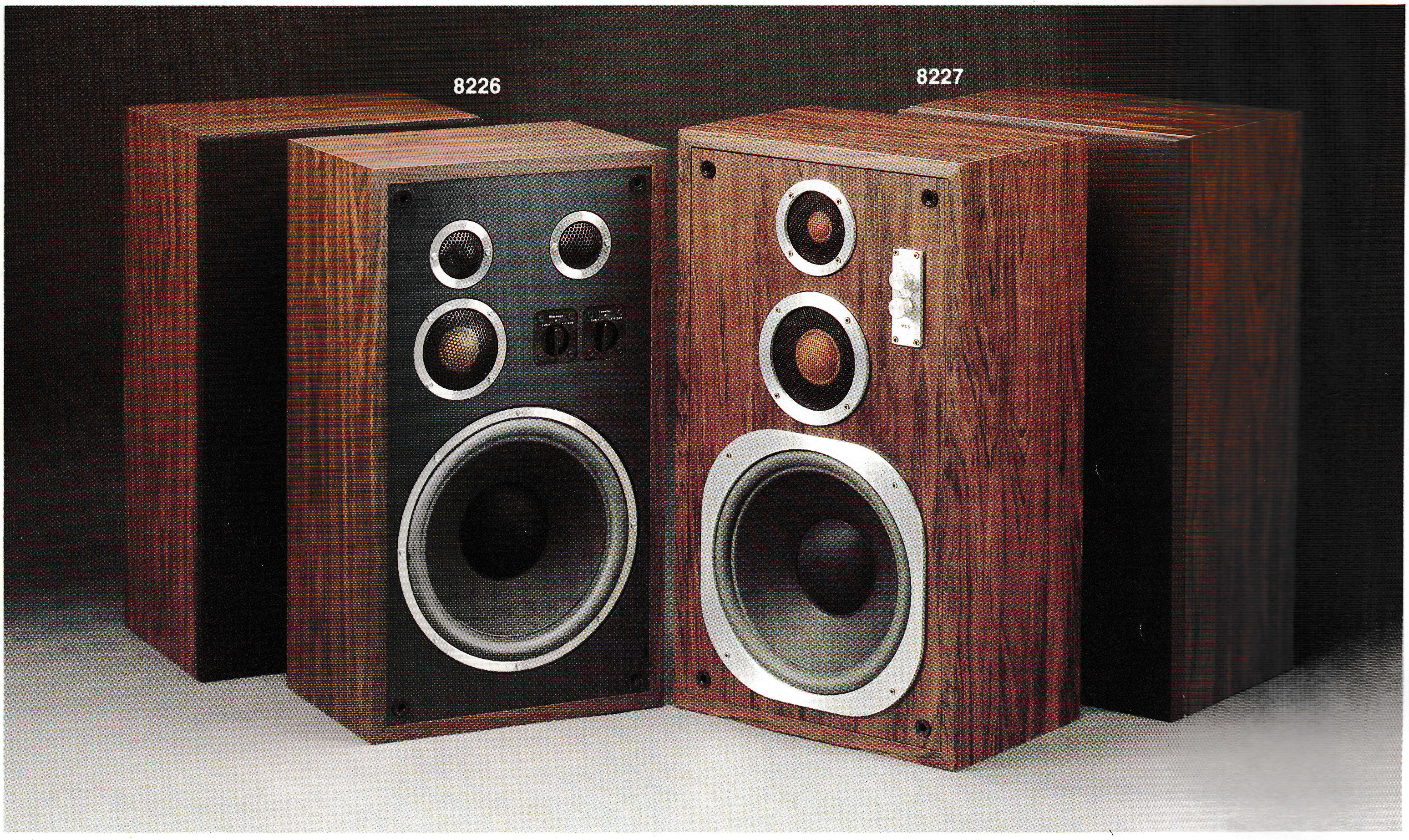
Frequency Response 45-20,000Hz: Delivers more of the seldom heard low frequency sounds.
Tweeter Control: Adjusts tweeter ± 3db to account for the acoustic conditions of your room.

8224 Features

High Efficiency Bass Reflex Port: Handle any receiver rated from 5 to 30 watts RMS with clarity.
8-inch Long Throw Linear Woofer with 8.5 oz. Magnet: Gives you deep powerful bass.
2½-inch, Low Mass Tweeter: Gives you crystal clear harmonics.
Electronic Crossover Network: Insures you that the woofer and tweeter handle only those frequencies that they were designed to transmit. The 12 db/octave rating assures you of a minimal degree of sound mixture or sound gap.

MCS™ Series

High Efficiency Speakers.



8226 Features

12-in. Long Throw Linear Woofer with a 25 oz. Ferrite Magnet: Along with a 3/4-in. thick cabinet helps provide a deeper bass response. Can handle any receiver rated from 10 to 60 watts RMS.

1½-in. Patented Soft Dome Midrange with a 15 oz. Magnet: Provides an extremely wide dispersion of sound in the vocal tone frequencies.

2-in. Low Mass Cone Tweeter: Provides crystal clear harmonics.

Tweeter and Midrange Controls: Let you adjust the midrange and tweeter to account for room acoustics or your own personal taste.

8227 Features

Air Suspension 3/4-in. Thick Cabinet: Helps achieve a flat response across the frequency range. Handles high powered receivers from 25 to 100 watts RMS.

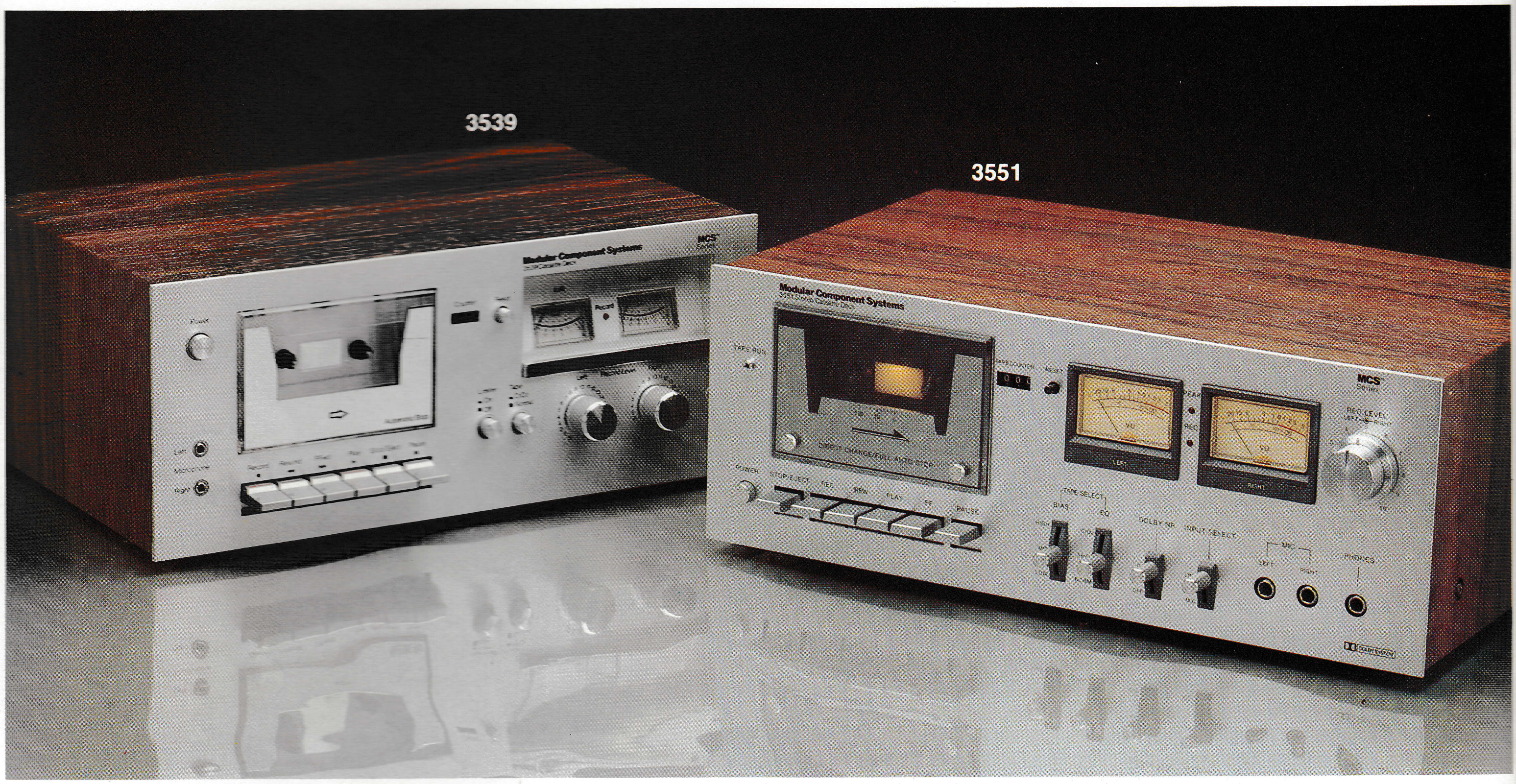
12-in. Woofer with a 38 oz. Magnet: Gives you deeper, fuller bass.

2-in. Soft Dome Midrange with a 25 oz. Magnet: Provides the right power capacity for clear, concise music.

Soft Dome 1-in. Tweeter with a 10 oz. Ferrite Magnet: Gives you extremely wide dispersion of high frequency sounds for concise music peaks.

MCS™ Series

Cassette Decks

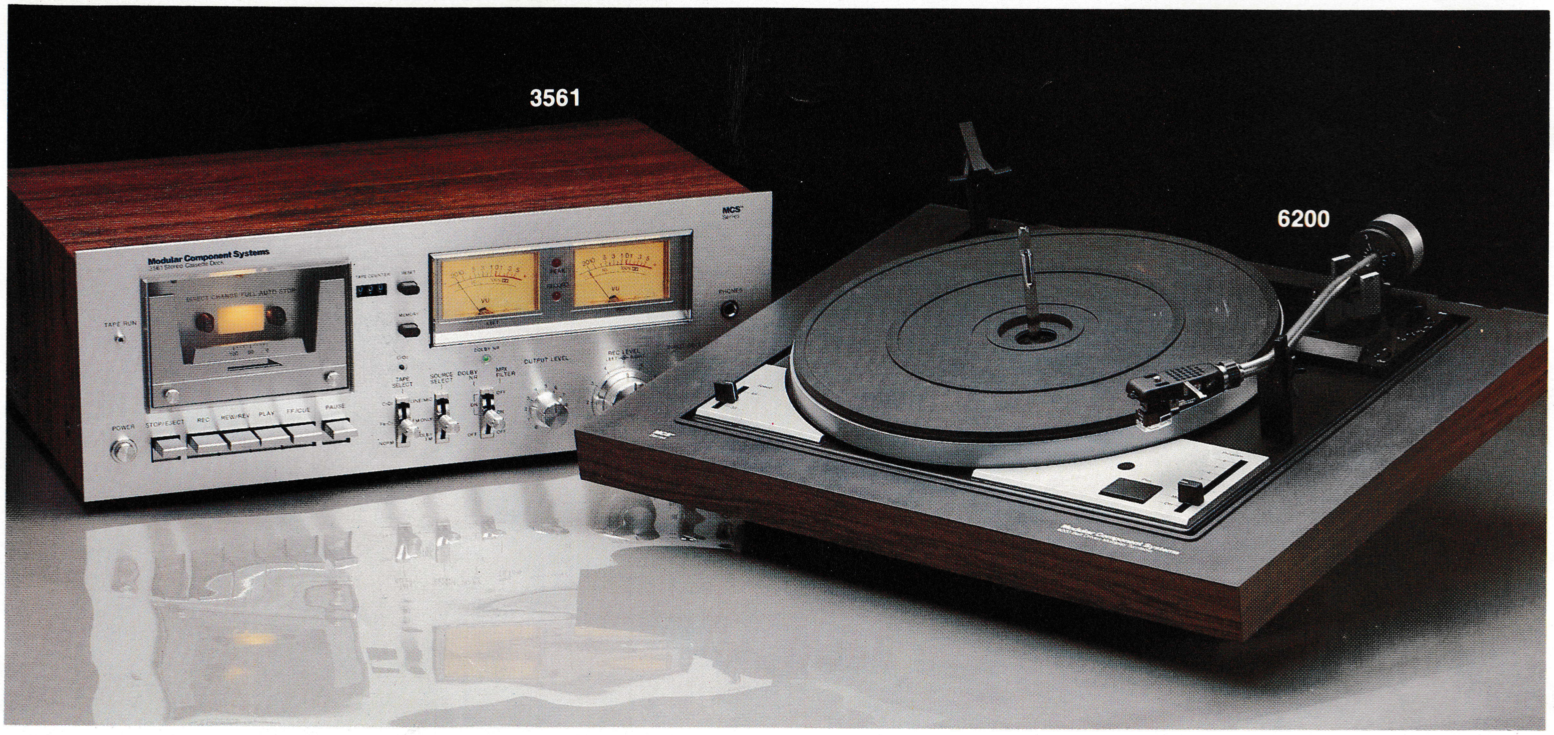


3539 Features
VU Meters and Controls: Give you a visual check on both the input into the tape deck and the ability of it to adjust to the recording level.
Noise Limiter: Helps eliminate hiss.
Tape Selector for Normal or CRO2: Allows you the fullest possible performance from both high and low grade tapes.
Digital Tape Counter: Allows you to locate the accurate location of desired program material.
Record Light: Provides visual indication that you are still recording from source or if tape has ended.

3551 Features
Dolby* Noise Reduction: Eliminates tape hiss and improves reproduction and playback capabilities. *Registered trademark of Dolby Labs. Inc.
Three-Way Tape Selector: Adjusts the tape head to insure maximum performance from CrO_2, FeCr and normal tapes.
Two-Head Tape Deck: With one head for recording and playback, one head for erase. Gives you maximum performance in each function.
Tape Running Light: Reminds you to turn off your unit. Also shows that tape is running.
LED Peak Indicator: Warns you that your source is putting out too high an input. Helps you achieve distortion free recording.
Internal Features
High Torque Frequency Generator Servo DC Motor: Combines with a 0.15 micron (or better) precision capstan for accurate tape motion and high fidelity specification wow and flutter ratio.
Super Hard Permalloy Tape Head: With a wear resistance about ten times as great as conventional permalloy heads. Head gap is 1.5 microns.
High Performance Semiconductors: Give you recording with minimum noise and distortion.

MCS™ Series

Cassette Deck
Belt Driven Turntable



3561 Features

FM Dolby*: Gives you Dolby noise reduction for decoding FM Dolby broadcasts. *Registered trademark of Dolby Labs, Inc.

Memory Reset: Returns the tape to your favorite selection at the push of a switch.

MPX Filter: Eliminates any possible recording mix between the FM broadcast you wish to record and the station's pilot signal.

Separate Input and Output Controls: Allow you to record your tapes at optimum input level while keeping the output at a comfortable level.

Dolby NR Light: Reminds you that you are playing or recording a tape in Dolby.

CrO_2 Light: Reminds you that your tape selector switch is set for CrO_2 tapes.

Cue/Review: Tells you when you are passing over a song or blank tape section while in the fast forward or rewind mode.

Internal Features

Refined Key Parts: Such as the motor, flywheel, belt, pinch-roller reel and clutch are used to give a high performance wow and flutter ratio.

6200 Features

Belt Drive: Helps dampen any motor noise while insuring a constant rotational speed.

24-pole Synchronous Motor: Gives more steady rotation.

S-shaped Tubular Tone Arm: Keeps the cartridge as close as possible to the perfect 90° perpendicular position to your record.

Viscous Damped Cue Pause Control: Prevents the needle from simply dropping down into the record groove. Prevents wear and damage to both stylus and records.

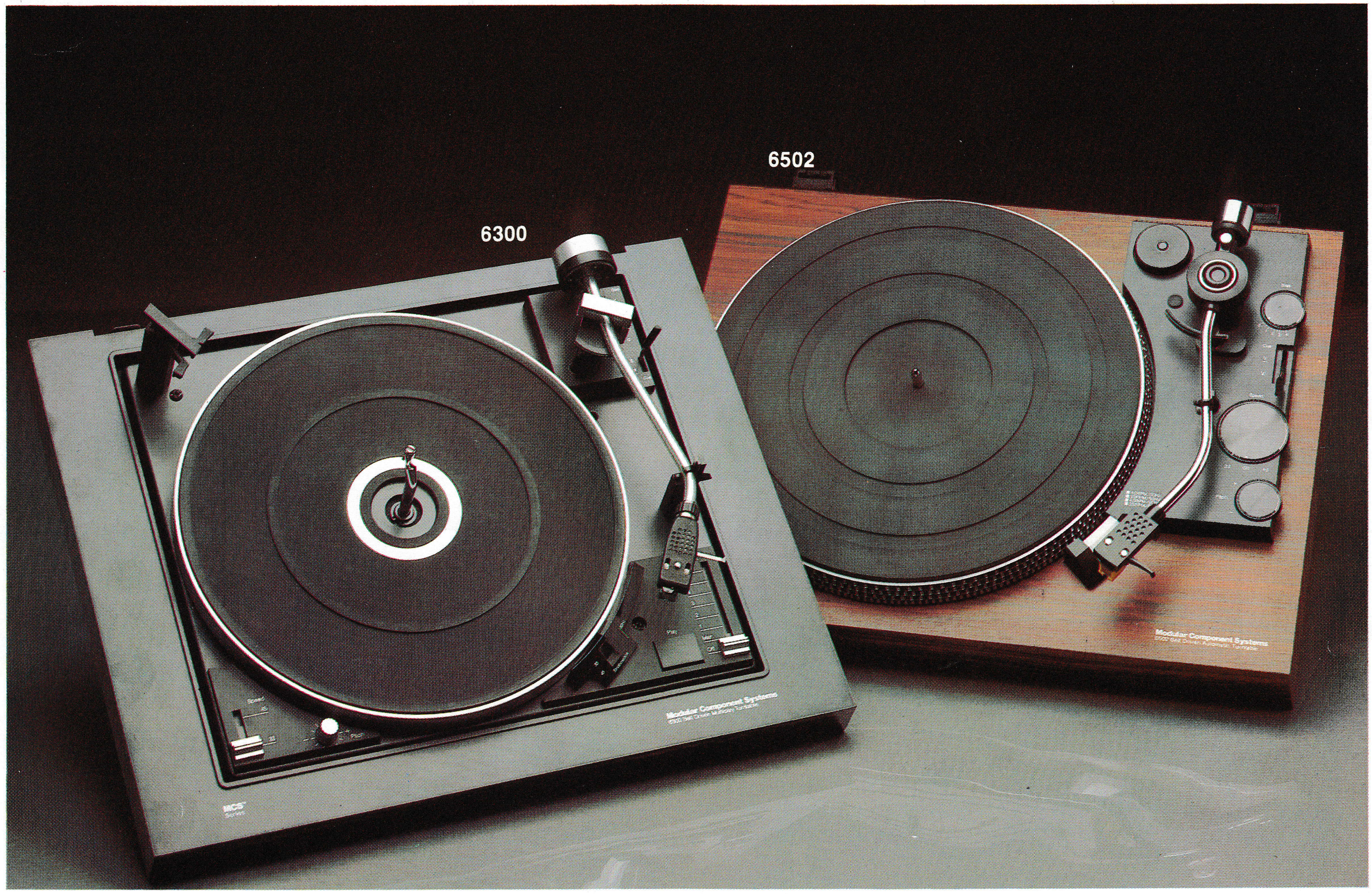
Shure® Magnetic Cartridge: Allows you to hear all the music from the highest highs to the lowest lows.

Record Stacking: Allows you to stack as many as six records at a time.

Hinged Dust Cover: Protects turntable and prevents dust from accumulating on record surface.

MCS™ Series

Belt Driven Turntables.



6300 Features
Wow and Flutter less than 0.05.
Rumble better than 63 db din A or din B.
Strobe Control: Lets you adjust the speed of the turntable to achieve the exact pitch you prefer. Compensates for any belt wear and stretching to achieve the perfect 33 1/3 RPM speed.
Shure® Magnetic Cartridge: Gives you greater frequency response and requires a tracking weight of only 1 gram.
Hinged Dust Cover: Protects turntable and prevents dust from accumulating on record surface.
Other Features
24-pole synchronous motor, S-shaped tubular tone arm, Viscous damped cue pause control, Heavy zinc die cast platter.

6502 Features
Belt Drive: Dampens motor noise.
DC Servo Motor: Minimizes wow and flutter as well as cut down motor noise.
Strobe Light with Speed Control: Allows you to adjust turntable speed to fit your own personal taste.
Plywood Base: Minimizes any cartridge vibration by eliminating audio feedback.
Audio Insulators: Minimize record skips.
Magnetic Cartridge by Audio Technics®: Provide you with extremely wide frequency response and excellent stereo separation.
Hinged Dust Cover: Protects turntable and prevents dust from accumulating on record surface.

MCS™
Series

35 Watt Audio Rack System.

35 Watt Amplifier

3835 Power: 35 watts minimum per channel, 2 channels driven at 8 Ohms. From 20 to 20,000 Hz. With not more than 0.8% total harmonic distortion.

Features

Loudness Switch: Boosts the bass at low volume.

Tape Monitor Dubbing: Lets you hook up two tape decks and record from one to the other.

Bass and Treble Controls: Let you adjust the bass and treble frequencies to your own personal taste.

FM/AM Tuner

3701 Features

Flywheel Tuning: Balanced to give you precision station selection.

Signal Strength and FM Tuning Meters: Signifies when you are receiving best possible reception.

FM Stereo Light: Lights up automatically to indicate you are receiving a stereo FM signal.

FM Muting: Reduces interstation interference.

FM Dipole Antenna: Improves FM reception.

Cassette Deck

3564 Features

Dolby* Noise Reduction: Eliminates tape hiss without disturbing the recording music. *Registered trademark of Dolby Labs. Inc.

VU Meters and Controls: For capability to adjust either left or right channels.

Digital Tape Counter with Reset: Tells you at a glance what portion of tape is playing.

Tape Selector: Adjusts the tape deck to maximize performance of either normal or chromium dioxide tape.

Other Features

Cue/review, Tape run indicator, Record light, Dolby NR light, Record mute, MPX filter, Output level control.

Three-Way Speaker System

8235 Features

10-in Long Throw Linear Woofer: With a 15 oz. Ferrite magnet for strong bass without distortion.

4-in. Midrange: With a 2.93 oz. magnet.

Dome Tweeter: For crystal clear harmonics.

6db/octave Crossover Networks: Electronically separate the bass, midrange and treble.

Tweeter Control: Allows you to adjust the speaker to the acoustics of your room.

Other Features

Brushed aluminum ring plates, Speaker stand, Woodgrain vinyl cabinet, Removable grille cloth.

Belt Driven Turntable

6502 Features

Belt Drive: Dampens motor noise.

DC Servo Motor: Minimizes wow and flutter as well as cut down on motor noise.

Strobe Light with Speed Control: Allows you to adjust turntable speed to fit your own personal taste.

Plywood Base: Minimizes any cartridge vibration by eliminating audio feedback.

Audio Insulators: Minimizes record skips.

Magnetic Cartridge by Audio Technics®: Provide you with extremely wide frequency response and excellent stereo separation.

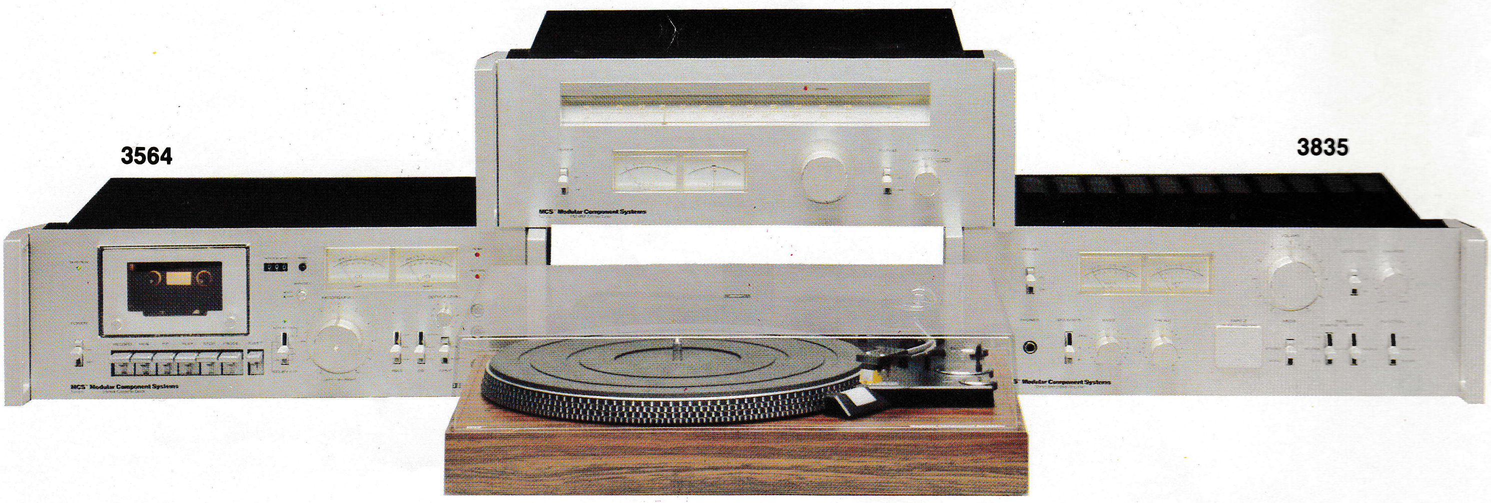
Available in either silver or black finish fronts.

Horizontal Audio Rack

5602 Features

Rosewood Finish: Matches speakers and turntable.

Cabinet: Furniture piece of woodgrain vinyl to house audio equipment. Smoked glass door for record storage.



MCS Modular Component Systems
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MCS™
Series

45 Watt Audio Rack System.

45 Watt Amplifier
3845 Power: 45 watts RMS minimum per channel, 2 channels driven at 8 Ohms. From 20 to 20,000 Hz. With not more than 0.8% total harmonic distortion.

Features
Loudness Switch: Boosts the bass at low volume.
Subsonic: Cuts out low frequency distortion like turntable rumble.
Tape Monitor Dubbing: Lets you hook up two tape decks and record from one to the other.
A,B, A+B Speaker Selection: Lets you hook up two sets of speakers.
Bass and Treble Controls: Lets you adjust the bass and treble frequencies to your own personal taste.
Tone Defeat: Allows you to by-pass the tonal controls and achieve a flat frequency response at the flick of a switch.

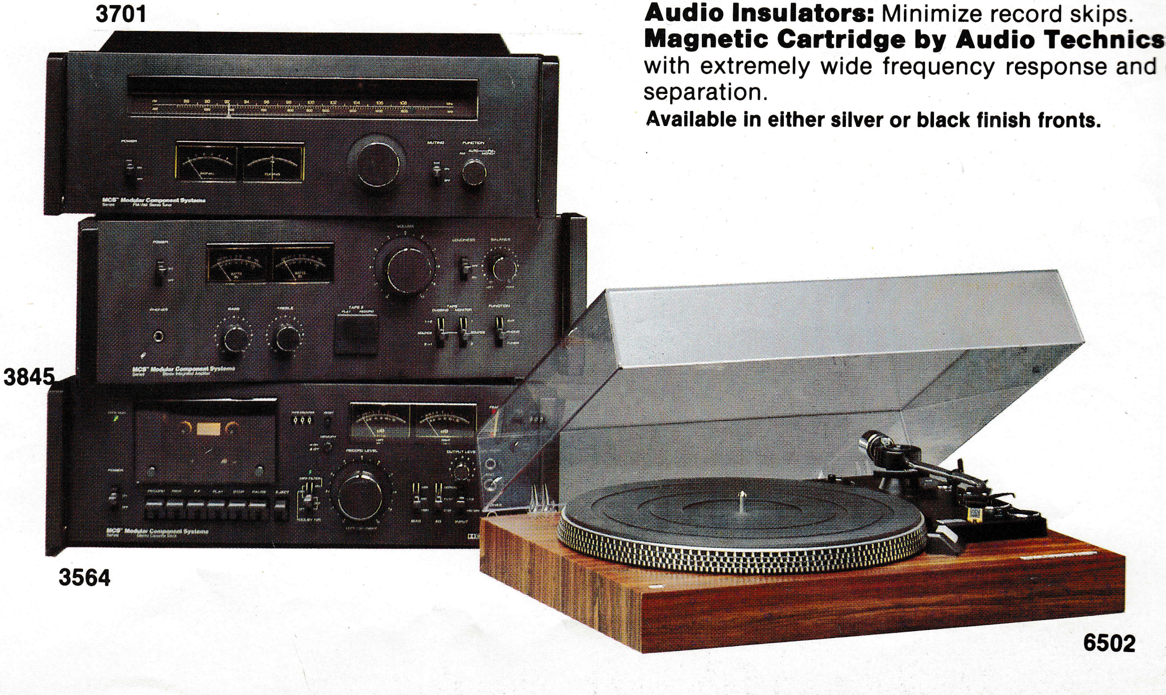
3701 FM/AM Tuner
Features
Flywheel Tuning: Balanced to give you precision station selection.
Signal Strength and FM Tuning Meters: Signify when you are receiving best possible reception.
FM Stereo Light: Lights automatically to indicate you are receiving a stereo FM signal.
FM Muting: Reduces interstation interference.
FM Dipole Antenna: Improves FM reception.

5625 Vertical Audio Rack
Features
Rosewood Finish: Matches speakers and turntable.
Cabinet: Three tier woodgrain vinyl furniture storage area for housing audio equipment.

3564 Cassette Deck
Features
Dolby* Noise Reduction: Eliminates tape hiss without disturbing the recorded music. *Registered trademark of Dolby Labs, Inc.
VU Meters and Controls: For capability to adjust either left or right channels.
Digital Tape Counter with Reset: Tells you at a glance what portion of tape is playing.
Tape Selector: Adjusts the tape deck to maximize performance of either normal or chromium dioxide tape.
Other Features
Cue/review, Tape run indicator, Record light, Dolby NR light, Record mute, MPX filter, Output level control.

8245 Three-Way Speaker System
Features
10-in. Long Throw Linear Woofer: With a 15 oz. Ferrite magnet for strong bass without distortion.
5¼-in. Midrange: With a 8.6 oz. Ferrite magnet for crisp, clear sounds in the voice range section of the frequency range.
Dome Tweeter: For crystal clear harmonics.
6 db/octave Crossover Networks: Electronically separates the bass, midrange and treble sound to provide clearer definition.
Tweeter Control: Allows you to adjust the speaker to the acoustics of your room.
Other Features
Brushed aluminum ring plates, Speaker stand, Woodgrain vinyl cabinet, Removable grille cloth.

6502 Belt Driven Turntable
Features
Belt Drive: Dampens motor noise.
DC Servo Motor: Minimizes wow and flutter as well as cut down on motor noise.
Strobe Light with Speed Control: Allows you to adjust turntable speed to fit your own personal taste.
Plywood Base: Minimizes any cartridge vibration by eliminating audio feedback.
Audio Insulators: Minimize record skips.
Magnetic Cartridge by Audio Technics®: Provides you with extremely wide frequency response and excellent stereo separation.
Available in either silver or black finish fronts.



NEC

MCS™
Series

65 Watt Audio Rack System.

65 Watt Amplifier

3865 Power: 65 Watts RMS minimum per channel, 2 channels driven at 8 Ohms. From 20 to 20,000 Hz. With not more than 0.5% total harmonic distortion.

Features

Speaker Reverse: Lets you easily check speaker phasing for perfect stereo sound.

Instantaneous Power Meters: Give you instant feedback of left and right channel output.

Scratch Filter: Cuts out annoying record scratches or FM hiss.

Other Features

Loudness switch, Subsonic, Tape monitor dubbing, Bass and treble controls, Tone defeat, A,B, A+B speaker selection.

3710 FM/AM Tuner

Features

MPX Noise Filter: Filters out FM stereo pilot signal without disturbing the music you want to hear.

Output Level Controls: Let you perfectly match the output of your tuner to your amp while insuring you get the lowest possible distortion.

Record Level Check: Insures that the output of the tuner matches the recording level of the tape deck. Gives you the fullest possible sound with the lowest possible distortion level.

Other Features

Flywheel tuning, Signal Strength and FM tuning meters, FM stereo light, FM muting, FM dipole antenna.

3563 Cassette Deck

Features

Cue Reverse: Lets you know when you are passing over a song or blank section of tape when in fast forward or reverse mode.

Tape Muting: Allows you to selectively erase portions of a tape, cutting out extraneous noise.

Other Features

Dolby* noise reduction system *Registered trademark of Dolby Labs, Inc., VU meters and controls, Digital tape counter with reset, Tape selector.

8265 Three-Way Speaker System

Features

12-in. Long Throw Linear Woofer: With Ferrite magnet for strong bass without distortion.

5⅛-in. Midrange: With a 6.4 oz. Ferrite magnet for crisp, clear sounds in the voice range section of the frequency range.

Horn Tweeter: For crystal clear harmonics.

12 db/octave Crossover Networks: Electronically separate the bass, midrange and treble sound to provide clearer definition.

Tweeter Control: Allows you to adjust the speaker to the acoustics of your room.

Other Features.

Brushed aluminum ring plates, Speaker stand, Woodgrain vinyl cabinet, Removable grille cloth.

6700 Direct Drive Turntable

Features

Single Chip Integrated Circuit: With functions of 321 elements to give you constant motor speed control. Accuracy of motor speed control remains constant because of locked in electronic precision.

Direct Drive: Insures a constant motor speed because the platter rotates with the motor itself. Helps eliminate distortion.

DC Servo Motor: Gives you extremely quiet operation and helps provide an excellent signal to noise ratio.

Plywood Base: Helps eliminate audio feedback by dampening any vibrations caused by sound from your speakers.

Multiple Play: Lets you stack six records at a time.

Other Features

S-shaped tubular tone arm, Viscous damped cue pause control, Heavy zinc die cast platter, strobe control.

Available in either silver or black finish fronts.

5621 Horizontal Audio Rack

Features

Rosewood Finish: Matches speakers.

Cabinet: 4 tier storage area for audio equipment. Two lined smoked doors for record, tape or headphone storage.

3563
3710
6700
3865
Modular Component Systems
MCS

MCS™ Series Specifications

	Receivers					Tuners		Amplifiers		
Model	3212	3223	3233	3253	3275	3701	3710	3835	3845	3865
Amplifier Section										
Output Power RMS	12W	23W	33W	53W	75W	N/A	N/A	35W	45W	65W
Impedance	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	N/A	N/A	8 ohm	8 ohm	8 ohm
Power Band Width	40-20,000Hz	40-20,000Hz	20-20,000Hz	20-20,000Hz	20-20,000Hz	N/A	N/A	20-20,000Hz	20-20,000Hz	20-20,000Hz
Total Harmonic Distortion	1.0%	0.9%	0.8%	0.5%	0.25%	N/A	N/A	0.08%	0.08%	0.05%
Frequency Response										
Phono	20-20,000Hz	20-20,000Hz	20-20,000Hz	20-20,000Hz	20-20,000Hz	N/A	N/A	20-20,000Hz	20-20,000Hz	20-20,000Hz
Phono Overload	140mv	210mv	160mv	240mv	240mv	N/A	N/A	170mv	170mv	360mv
S/N Phone (2.5mv)	78dB	84dB	80dB	85dB	85dB	N/A	N/A	75dB	75dB	86dB
IM Distortion	0.5%	0.2%	0.1%	0.03%	0.06%	N/A	N/A	0.08%	0.08%	0.02%
FM Section										
Frequency Response	20-12,000Hz	15-15,000Hz	10-15,000Hz	12-15,000Hz	10-16,000Hz	10-16,000Hz	9-16,000Hz	N/A	N/A	N/A
Usable Sensitivity	3.0uv	2.5uv	3.0uv	1.9uv	1.9uv	1.9uv	1.9uv	N/A	N/A	N/A
Capture Ratio	1.5dB	2.5dB	2.2dB	0.75dB	1.0dB	0.9dB	0.6dB	N/A	N/A	N/A
Image Rejection	50dB	45dB	50dB	50dB	51dB	50dB	85dB	N/A	N/A	N/A
Stereo Separation	33dB	40dB	30dB	48dB	48dB	48dB	45dB	N/A	N/A	N/A
Quieting Sensitivity	4uv	4uv	5uv	3uv	3.5uv	3.0uv	3.0uv	N/A	N/A	N/A
Total Harmonic Distortion										
Mono	0.6%	0.25%	0.25%	0.21%	0.25%	0.2%	0.2%	N/A	N/A	N/A
Stereo	0.8%	0.5%	0.35%	0.25%	0.25%	0.2%	0.2%	N/A	N/A	N/A
AM Section										
Sensitivity (UV/M)	500	350	350	300	300	300	250	N/A	N/A	N/A
Selectivity (dB)	30	30	35	30	35	30	30	N/A	N/A	N/A
S/N Ratio (dB)	37	32	32	50	50	50	50	N/A	N/A	N/A

	Turntables					
Model	6200	6300	6502	6503	6601	6700
Type	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic
Cartridge Frequency Response	20-20K	20-20K	20-20K	20-20K	20-20K	20-20K
Cartridge Output Level	6.2	6.2	4.7	4.7	4.5	4.5
Channel Separation	20	20	19	19	20	20
Channel Balance	2.0dB	2.0dB	2.0dB	2.0dB	2.0dB	2.0dB
Wow & Flutter %	0.1%	0.1%	0.06%	0.06%	0.03%	0.04%
Rumble*	-60dB	-60dB	-65dB	-65dB	-70dB	-70dB
Speed Deviation	0.2%	0.1%	0.16%	0.16%	0.14%	0.06%
Tracking Error	4.5°	4.5°	3.5°	3.5°	3.5°	3.5°
Tone Arm Length	7.55	7.55	8.65	8.65	9.06	9.06

***RUMBLE MEASUREMENT PER DIN B SPECIFICATIONS.**

MCS™ Series Specifications

Speakers

Model	8224	8225	8226	8227	8228	8235	8245	8265
Woofer Size	BR* 8″	BR 10″	BR 12″	AS† 12″	AS 12″	BR 10″	BR 10″	BR 12″
Woofer Weight	8.5 oz.	15 oz.	25 oz.	38 oz.	54 oz.	15 oz.	15 oz.	20 oz.
Voice Coil	1″	1″	1½″	2″	2″	1-5/16″	1-5/16″	2″
Midrange Size	—	5¼″	1½″	2″	2-2″	4″	5¼″	5⅛″
Midrange Type	—	Cone	Soft Dome	Soft Dome	Soft Dome	Cone	Cone	Cone
Midrange Weight	—	11.7 oz.	15 oz.	25 oz.	25 oz.	2.93 oz.	8.6 oz.	6.4 oz.
Tweeter Size	2½″	2½″	2″	1″	1″	2½″	2½″	2½″
Tweeter Type	Cone	Cone	Cone	Soft Dome	Soft Dome	Cone	Cone	Horn
Tweeter Weight	1.71 oz.	1.71 oz.	6. oz.	10. oz.	10. oz.	1.71 oz.	1.71 oz.	1.3 oz.
Cabinet Thick.	⅜″	⅝″	⅝″	¾″	1″	⅝″	⅝″	¾″
Power Cap.	5-30W	10-50W	10-60W	25-100W	50-150W	10-40W	10-50W	10-70W
Controls	—	Tweeter	Tweeter Mid.	3-position Mid/Tweeter	3-position Mid/Treble	Treble	Treble	Tweeter Mid.
Impedance	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm
Crossover Network Type	5KHz	600Hz 4KHz	600Hz 6000Hz	600Hz 2000Hz	600Hz 2000Hz	4000Hz 9000Hz	4000Hz 9000Hz	700Hz 5000Hz
Crossover Network Rating	12dB/oct.	6dB/oct.	12dB/oct.	12dB/oct.	12dB/oct.	6dB/oct.	6dB/oct.	12dB/oct.

***BASS REFLEX**
†AIR SUSPENSION

Stereo Cassette Deck

Model	3551	3561	3564	3563
Track System	4 Track 2CH	4 Track 2CH	4 Track 2CH	4 Track 2CH
Tape Speed (IPS)	1⅞	1⅞	1⅞	1⅞
Wow & Flutter	0.04%	0.05%	0.06%	0.07%
Frequency Response				
Playback (Normal ± 3db)	40-12,500Hz	40-14,000Hz	20-12,500Hz	20-12,500Hz
Recording/Playback				
CRO2 (± 3db)	40-14,000Hz	40-15,000Hz	20-14,000Hz	20-15,000Hz
FECR (± 3db)	40-14,000Hz	40-16,000Hz	20-14,000Hz	20-15,000Hz
S/N Ratio				
CRO2 Dolby On	66.5dB	65.5dB	64dB	64dB
CRO2 Dolby Off	60dB	59.5dB	59dB	57dB
Norm. Dolby On	61dB	63dB	61dB	63dB
Norm. Dolby Off	52dB	54dB	53dB	55dB
Power Consumption	18W	18W	14.5W	15W

MCS™
Series

Modular Component Systems